

## Claims

1. A method for calculating/optimizing the diameter of a paper or board web reel, in which method a web is wound in paper or board machines into machine reels, which are run on a slitter-winder to form customer rolls, whose desired diameter and width are determined according to the customer's need, and in which method a continuous-trimming running mode is used in which a desired amount of web is run into a machine reel and, when needed, splicing is performed on the slitter-winder to produce customer rolls with a desired diameter size, **characterized** in that, in the method, the machine reel diameter is determined on the basis of restrictions set by the customer or equivalent on the location of a splice in the customer roll and the amount of the broke being produced from the machine reel is optimized, that, in the method, information about the customer rolls to be slit is obtained from a production control system or equivalent for calculating/ optimizing a machine reel diameter instruction for the purpose of optimizing the diameter of the next machine reel, and that the calculated/optimized machine reel diameter instruction is set in the control system of a reel-up.
2. A method as claimed in claim 1, **characterized** in that, in the method, the calculated/optimized machine reel diameter is fed manually to the control system of the reel-up.
3. A method as claimed in claim 1, **characterized** in that, in the method, the calculated/optimized machine reel diameter is transmitted automatically to the control system of the reel-up.
4. A method as claimed in any one of claims 1 to 3, **characterized** in that the restrictions on the splice location are set according to each individual paper grade, printing house and/or order.

5. A method as claimed in any one of claims 1 to 4, **characterized** in that the number and the location of the splices to be placed in customer rolls and the resultant machine reel broke, caused because of the joining of machine reels to one another, are optimized in the method.

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6. A method as claimed in any one of claims 1 to 5, **characterized** in that the undersize machine reels produced as a result of web breaks occurred on the paper or board machine and the optimization of the location of the splice used for joining them are taken into account in the method.

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7. A method as claimed in any one of claims 1 to 6, **characterized** in that the slitting order of machine reels is changed by means of the method.

8. A method as claimed in any one of claims 1 to 7, **characterized** in that the method is applied as a stand-alone system in connection with a slitter-winder and a machine reel-up.

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9. A method as claimed in any one of claims 1 to 7, **characterized** in that the method is applied as a part of the production control system of the paper or board machine.

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